ENRICO CASELLA

PHD CANDIDATE

PERSONAL PROFILE

My research focuses on power conservation systems in smart grids employing auction theory and machine learning techniques. I also focus on algorithms for the prediction of respiratory disease in dairy calves. Additionally, I supervise undergraduate research for students in CPSlab, and I am the president of the Graduate Student Association of Computer Science

AWARDS & ACHIEVEMENTS

Computational Commonwealth Summit 2020 winner

Thaddeus B. Curtz Memorial Scholarship award winner 2022

SERVICES

- Paper reviewer for: SMARTCOMP, WoWMoM, GLOBECOM, WiMob, LCN, ICC, IWQoS, DCOSS, COMSNETS, ICDCS
- TPC for: INFOCOMP 2020, ICDCN 2023
- Student volunteer for IEEE ICNP 2022
- GSACS President
- Guest lectures for CS371 and CS686
- Former Graduate Student Congress member - Mental Health Committee
- Former GSACS Representative

EDUCATION

- Doctorate, Computer Science University of Kentucky (Fall 2018 - present)
- Master of Science, Computer Engineering University of Palermo (2015-2018)
- Bachelor of Science, Computer and Telecommunication Engineering University of Palermo (2012-2015)

CONTACT INFORMATION

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329 Rose St, Lexington, KY,40506

EMPLOYMENT HISTORY

Research Assistant

University of Kentucky (CPSlab) (Summer 2019 - Present)

- Power conservation on smart grids by means of reverse auctions, machine learning power saving predictions, online surveys to model user behavior
- Diagnosis and early prediction of Bovine Respiratory Disease with machine learning techniques in smart farms by means of precision livestock technology

Teaching Assistant for CS371

University of Kentucky (Spring 2019)

- Final project development
- Lectures on Intro to Machine Learning
- Lectures on packages and coding requirements for projects

Teaching Assistant for CS215

University of Kentucky (Fall 2018)

- Leading lab classes
- Grading

Visiting Research Scholar

Missouri University of Science&Technology (2017)

- Research and development of structural machine learning techniques
- Research and hands-on project on human activity recognition

PUBLICATIONS

Personal and Ubiquitous Computing. Springer

[*] Hierarchical Syntactic Models for Human Activity Recognition through Mobility Traces

International Conference on Smart Computing (SMARTCOMP)

[*] Smartwatch application for Horse Gaits Activity Recognition

Pervasive and Mobile Computing. Elsevier

[*] A framework for the recognition of horse gaits through wearable devices

International Conference on Pervasive Computing and Communications (PerCom)

[*] HVAC Power Conservation through Reverse Auctions and Machine Learning

DCOSS CONFERENCE

[*] Cost-aware Inference of Bovine Respiratory Disease in Calves using Precision Livestock Technology

Animal Science (Frontier)

Using machine learning and precision livestock farming technology for early indication of Bovine Respiratory Disease status in preweaned dairy calves

European Conference on Precision Livestock Farming (ECPLF)

Using machine learning and precision livestock farming technology for early indication of health status in preweaned dairy calves

International Conference on Smart Computing (SMARTCOMP) - WiP

[*] Dissecting the Problem of Individual Home Power Consumption Prediction using Machine Learning

[*] indicates first author